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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,120	05/10/2001	Yoshiharu Hirakata	07977/275001US4910	7408
26171	7590	05/05/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			POMPEY, RON EVERETT	
			ART UNIT	PAPER NUMBER
			2812	

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/854,120

Applicant(s)

HIRAKATA ET AL.

Examiner

Ron E. Pompey

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 is/are allowed.
- 6) ☒ Claim(s) 1 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-6-06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Mikami et al. (US 6,115,017).

Mikami discloses the limitations of:

forming a first conductive film (54, fig. 7) over a first substrate;

forming a first insulating film (16, fig. 7) over said first conductive film;

forming a thin film transistor over said first insulating film (51, fig. 7);

forming a second insulating film over the thin film transistor(52, fig. 7);

forming a pixel electrode over the second insulating film (7, fig. 7) (col. 7, Ins. 6-56);

forming a second conductive film over a second substrate (9, fig. 1); and

providing liquid crystals between said thin film transistor and said second conductive film;

providing a liquid crystal layer between a plurality of pixel electrodes and a plurality of electrodes opposite to said pixel electrodes, and making said liquid crystals

Art Unit: 2812

monostable by applying an electric field between said pixel electrodes and said electrodes opposite to said pixel electrodes in such a manner that all of said pixel electrodes are given a fixed electric potential during a common time period (col. 5, 27-38); and

wherein said liquid crystals is made monostable by an electric field applied to said liquid crystal, wherein liquid crystals of said liquid crystal layer have bistability or hysteresis characteristics by said first conductive film and said second conductive film, while electric voltages having the same polarity are applied to said pixel electrode (col. 27, ln. 47 – col. 48, ln.67 where Vmemory is the voltage applied to the pixel electrode). It is inherent that an electric field will be produced when voltages are applied to two opposing electrodes as shown in Noguchi incorporated by reference.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. (US 6,108,061) in view of Sako et al. (US 6,108,061).

Mikami does not disclose the claimed limitation(s) of:

while an ultraviolet ray is applied to said liquid crystals.

However,

a. Sako discloses the above claimed limitations regarding:

Art Unit: 2812

while an ultraviolet ray is applied to said liquid crystals (col. 8, Ins. 16-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Sako with Mikami, because the ultraviolet ray forms a polymer reticulate structure, from the mixture of liquid crystal material and polymer material, producing a stable state for the liquid crystal elements in the liquid crystal material.

***Allowable Subject Matter***

5. Claims 2, 3 and 4 are allowed.

6. Claims 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, either singly or in combination, fails to disclose the limitations of: while electric voltages having the same polarity are applied to said pixel electrode and an ultraviolet ray is irradiated to said liquid crystals.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iwaki et al. (US 5,600,485) electric voltages having the same polarity are applied to said pixel electrode and an ultraviolet ray is irradiated to said liquid crystals.

Noguchi (US 5,040,875) voltage applied to opposing electrodes produce an electric field.


***Response to Arguments***

2. Applicant's arguments filed 2-6-06, pertaining to claims 1-4 and 6-14 have been fully considered but they are not persuasive. The applicant states, for claims 1, 6 and 7 that it is not inherent that an electric field is produced when voltages are applied to two opposing electrodes. However, does not give an example of where it would not be the case. Instead merely states "This simply is not the case". Nor does applicant refute the Noguchi reference, which was incorporated by reference to show that this is the case. Also, because the electric field is produced then the prior art is disclosing the same steps as claimed and therefore the liquid crystal (lc), will become monostable. Also claim 8 was mistakenly rejected in the 102 section instead of the 103 with claim 7.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ron E. Pompey whose telephone number is (571) 272-1680. The examiner can normally be reached on compressed.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Lebentritt can be reached on (571) 272-1873. The fax phone number for the organization where this application or proceeding is assigned is 703-

872-9306.

  
Ron Pompey  
April 30, 2006

  
MICHAEL LEBENTRITT  
SUPERVISORY PATENT EXAMINER